Water Reuse Will Require Regulatory Revisions; in Texas, TCEQ is Revising Its Rules

Jeremy Brown | March 7, 2013 | 1 Comment

Texas water planners have warned that the state, to meet its water supply needs, must reuse more water. The 2012 State Water Plan predicts that, by 2060, reuse will account for about 10 percent of new water supplies statewide and 27 percent of new supplies in the Dallas-Fort Worth area.

Already, a significant amount of water is being reused. According to the SWP, for instance, the number of entities receiving permits from TCEQ for direct non-portable water reuse rose from in 1990 to 187 in June 2010. And Wichita Falls is now building a first-in-the-country toilet-to-tap treatment plant.

"The city is one of several in Texas pursuing reuse projects," the Texas Tribune reported. "This spring, a $14 million plant in the West Texas hamlet of Big Spring will begin turning treated wastewater into drinking water and distribute about 2 million gallons of it daily to the Midland-Odessa area. Brownwood recently received approval from the [TCEQ] to build a reuse plant. Abilene and Lubbock are in the early stages of looking at the technology."

In many instances, reuse projects offer water supply sources that are less expensive than new reservoirs or pipelines. Three water industry trade groups – the National Association of Clean Water Agencies, the Water Environment Research Foundation and the Water Environment Foundation – released a report last month observing that water utilities increasingly view wastewater as a resource rather than simply as something to be discharged. The report notes that reused municipal wastewater already constitutes 30 percent of water supplies in Singapore and that figure will increase to 50 percent by 2060.

Reuse projects must still overcome legal and regulatory hurdles, however. The report found that, in a survey of 62 medium and large wastewater agencies, project financing and regulatory concerns posed the most significant obstacles to greater reuse. The report recommended a number of fixes, such as changing Clean Water Act funding priorities and adding safeguards for potable reuse to the Safe Drinking Water Act. But the report also identified current water rights regimes as potential stumbling blocks:

"[S]tate legislation that governs creation and allocation of water rights to users generally was not written contemplating reuse of wastewater. Many states have not yet addressed this matter and conventions vary widely among the states that have amended water laws to accommodate reclaimed water. Generally, it remains unclear whether reclaimed wastewater creates a new supply or a right to use, and if it does, to whom this right belongs, especially where downstream uses including the environment could be disadvantaged. In some states, utilities have explicit, but limited rights to reuse water, as is the case in Colorado where water reuse is limited to the amount imported from outside the basin or that originated as groundwater. In Utah and New Mexico, utilities essentially must have or buy water rights before they can reuse wastewater. Legislation in other states, like Florida and New Jersey explicitly encourages and promotes reuse of wastewater."

Texas law encourages reuse, but barriers remain. The state distinguishes between two types of reuse – direct and indirect. Direct reuse is the use of reclaimed water. The key feature is that the water never leaves the possession of the appropriator.

Indirect reuse is the use of wastewater effluent after it has been discharged into a water supply source. As a general matter, an appropriator can indirectly reuse water only if its appropriations permit allows it to do so and even then must obtain a "bed and banks" authorization from the TCEQ. If the appropriations permit does not include such reuse conditions, the appropriator will be deemed to have abandoned the water by releasing it into the stream and will need to obtain a new appropriation to divert that water downstream. *See* Texas Water Code § 11.046(c); *City of San Marcos v. Tex. Comm'n on Envtl. Quality*, 128 S.W.3d 264, 275 (Tex. App. 2004).

The exception to this rule is that, under Texas Water Code § 11.042(b), an appropriator may discharge and subsequently divert and reuse returns flows "derived from privately owned groundwater," provided that the appropriator obtains a bed and banks authorization and fulfills certain conditions.

Like any scheme designed to manage a complicated resource while balancing conflicting interests, this one has policy upsides and downsides. It protects downstream appropriations from the threat that upstream appropriators will drain or excessively pollute streams by cycling water. At the same time, it deprives the upstream appropriators of the conveyance and purification benefits that the natural watercourse could provide. (And as with all of Texas water law, it ignores the hydrological connection between groundwater and surface water.)

Within this scheme, there are rules that further complicate reuse. Texas grants appropriations only for recognized beneficial uses such as agriculture, navigation and hydroelectric power. Each of these beneficial uses are, in turn, defined in ways that impose substantive limits on how water is actually used.

Last month, TCEQ proposed a rule that would revise the definition of "municipal use" as set forth in 30 TAC § 297.1(32). The proposal comes in response to a petition from the City of Irving.

In its current form, Section 297.1(32) defines municipal use as: "[t]he use of potable water within a community or municipality and its environs for domestic, recreational, commercial, or industrial purposes or for the watering of golf courses, parks and parkways, or the use of reclaimed water in lieu of potable water for the preceding purposes or the application of municipal sewage effluent on land, under a Texas Water Code, Chapter 26, permit where: (A) the application site is land owned or leased by the Chapter 26 permit holder; or (B) the application site is within an area for which the commission has adopted a no-discharge rule."

The proposed rule would revise the section in three principal ways. First, municipal use would be expanded to encompass the watering of "golf courses, parks and parkways, [or] other public or recreational spaces." This proposal does not advance reuse so much as it does clarify – and arguably expand – the end uses to which municipal appropriations of water may be put.

The proposal does not define the term "public or recreational spaces." But in its notes accompanying the proposed rule, TCEQ elaborates slightly: "Other public or recreational spaces could include such areas as athletic fields, neighborhood common areas, and other areas within a community and its environs with public uses." The agency does not explain the reasons it believes this additional language to be necessary. The examples it cites – such as "athletic fields" and "neighborhood common areas" – could probably fit within a term that is already written into the provision: "parks."

Additionally, the phrase "public or recreational spaces" implies that "public" and "recreational" spaces are distinct. Taken literally, "public" spaces would catch within its net all publicly owned spaces, regardless of land use, and "recreational" spaces would represent some subset of non-public spaces. The explanation that TCEQ gives in its notes suggests a contrary and much more limited reading, however. It indicates that all spaces that could be characterized as "public or recreational spaces" should have "public uses." It is unclear what benefit this new language provides other than perhaps to provide a definitional bulwark against critics who push for municipalities to reign in the amount of water they use on landscaping.

The second and more important way the proposal would modify the rule is by counting as a municipal use "the use of return flows authorized pursuant to Texas Water Code § 11.042, in lieu of potable water for the preceding purposes." The existing version of Section 297.1(32) already includes a provision allowing "reclaimed water in lieu of portable water" to be used for the specified purposes. The definition of "reclaimed water" requires that the water be "under the direct control of the treatment plant owner/operator, or agricultural tailwater." As a result of the "direct control" requirement, this provision allows direct but not indirect reuse.

The new language would bridge this gap by recognizing that, when "return flows" authorized under the bed and banks statute are used for the specified purposes, these uses are municipal.

The final way the proposal would change Section 297.1(32) is by imposing a water quality safeguard on indirectly reused water: "Return flows used for human consumption as defined in § 290.38(32) of this title (relating to Definitions) must be of quality suitable for the authorized beneficial use as may be required by applicable commission rules."

In petitioning the TCEQ, Irving argued that, "[w]ithout the proposed amendment, municipalities desiring to indirectly utilize treated wastewater effluent for watering golf courses, parks and parkways are required to amend their underlying water right authorization to include 'agricultural use.' Not only is obtaining such an amendment potentially time consuming and expensive for the municipality, and burdensome on the TCEQ staff, it is not logical – watering such municipal facilities with reuse water in order to relieve the potable water demand on the municipal supply system is a municipal use, not an agricultural use."

This makeshift solution that Irving describes is administratively burdensome and raises questions about the effectiveness of "beneficial use" classifications in the first place. The watering of golf courses, parks and parkways would not qualify as an "agricultural use," as the term is defined in the Texas Administrative Code. That definition applies to the use of water to cultivate crops, manage wildlife, sustain cower crops or practice horticulture. Wildlife may live on golf courses, for instance, but it seems a bit far-fetched to argue that golf course grass is used to manage wildlife or should be deemed horticulture.

In the current state of affairs, then, municipalities that want to indirectly reuse water are applying for – and receiving – TCEQ permit modifications that allow those municipalities to reuse the water for uses that are purportedly "agricultural" but that even the municipalities admit are not "agricultural." On one hand, that TCEQ plays along with this ruse shows that the agency possesses a pragmatic flexibility and willingness to sidestep outdated regulations. On the other hand, the agency is disregarding a bedrock precept of the appropriations doctrine.

Amending Section 297.1(32) would at least synchronize the "municipal use" definition in TCEQ regulations with prevailing real-world practices and reduce the administrative costs that the current "agricultural use" runaround imposes. And if there is truth to the reasoning that Irving put forward, and that TCEQ accepted, the revision would facilitate further indirect reuse, at least to a certain degree.

TCEQ | Texas | water

One comment

Brenda Rankin
June 13, 2014 7:09 am

A limestone quarry outside the city limits of Chico will pay for the equipment to the wastewater plant for the right of first refusal of all reuse water for a period of thirty years at a set rate (to be adjusted per index) The reuse water will not be available for municipal use such as irrigation for parks, school yards, etc. The reuse water will be used for dust control, washing of the limestone and the landscape of the berms. Is there a comment period for the public to speak against reuse water for a limestone quarry?

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